

Quick Facts

About... Smallpox

What is smallpox?

Smallpox is a very serious disease caused by the variola virus. The last naturally occurring case of smallpox occurred in Somalia in 1977. The last case of smallpox in the U.S. was reported in 1949. In 1980, due to aggressive vaccination campaigns, the World Health Organization (WHO) announced that smallpox had been eradicated from the world as a natural disease threat. However, smallpox remains a threat because it is thought that some countries have retained smallpox virus and may have prepared sufficient virus stock to use as a bioweapon. Smallpox is fatal in approximately 30 percent of those who become infected.

What are the symptoms of smallpox?

Symptoms generally occur about 12-14 days after exposure. Early symptoms include high fever, malaise, headache, severe fatigue, and severe muscle aches. Abdominal pain and vomiting may sometimes occur. In about 2-4 days, a pearly, bumpy rash begins on the face, hands, and feet (including the palms and soles), which spreads inward toward the trunk. In 1-2 days, the rash then becomes blister-like and forms pustules in the skin. These pustules scab over in about 8-9 days. The scabs fall off about 3-4 weeks after the rash begins, leaving pigment-free skin. Pitted scars may form.

How is smallpox spread?

Smallpox spreads directly from person-to-person, primarily from mouth and throat droplets from an infected person or from contact with fluid from the rash lesions. Contaminated clothes or linens can also spread the virus. The risk of transmission is highest from the onset of the rash to about 7-10 days after the rash begins. Humans are the only known source of the virus.

Who is at risk for smallpox?

Currently, the risk of naturally-occurring smallpox infection does not exist. The risk of smallpox lies with the potential of the virus to be used as a bioweapon. This risk is regularly addressed as part of preparedness planning.

How do I know if I have smallpox?

It is extremely unlikely that you would ever be exposed to smallpox virus since the disease has been eradicated. Other viral illness, such as chickenpox, can resemble smallpox in some cases, so it is important to see your health care provider if you develop a rash illness.

How is smallpox treated?

Treatment of smallpox is limited to supportive therapy and antibiotics for secondary bacterial infections. Although there are no antiviral treatments to kill or suppress the virus that have proven to be effective, some experts suggest the use of cidofovir, an antiviral drug, for smallpox treatment.

Can smallpox be prevented?

Smallpox can be prevented through vaccination. The vaccine contains the *Vaccinia* virus, which is related to the smallpox virus. Smallpox vaccination used to be included in the routine vaccination schedule for children, but routine vaccinations for children ceased in the United States in 1972 when smallpox no longer occurred in the U.S. and rarely in other areas of the world. Individuals vaccinated before 1972 probably do not have lifelong immunity.

Military recruits are still routinely vaccinated. The Centers for Disease Control and Prevention (CDC) maintains a limited supply of smallpox vaccine. If the vaccine is given within 3-4 days of the first exposure, there may be some protection against infection. While the vaccine is effective in preventing transmission of smallpox, complications from the vaccine may occur, some of which may be severe. Vaccinia Immune Globulin (VIG) may be recommended for certain complications related to the vaccine.

All information presented is intended for public use. For more information, please refer to: <http://www.emergency.cdc.gov/agent/smallpox/disease/>.

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